

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**MACLEAN-FOGG COMPANY,**

**Plaintiff,**

**v.**

**EATON CORPORATION,**

**Defendant.**

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**CIVIL ACTION No. 2:07cv472**

**MEMORANDUM OPINION AND ORDER**

This claim construction order sets forth the Court’s constructions for the disputed claim terms in the five patents asserted by Plaintiff MacLean-Fogg (“MF”): 1) U.S. Patent No. 7,025,025 (“the ‘025 patent”); 2) U.S. Patent No. 7,069,891 (“the ‘891 patent”); 3) U.S. Patent No. 7,281,329 (“the ‘329 patent”); 4) U.S. Patent No. 7,284,520 (“the ‘520 patent”); and 5) U.S. Patent No. 7,293,540 (“the ‘540 patent”). Plaintiff has filed an Opening Claim Construction Brief (“Opening”) (Doc. No. 80) and a Reply Claim Construction Brief (“Reply”) (Doc. No. 88). Defendant has filed a Responsive Claim Construction Brief (“Response”) (Doc. No.83). For the reasons stated herein, the Court adopts the constructions set forth below.

**BACKGROUND**

On October 31, 2007, Plaintiff filed the instant action against Defendant Eaton Corporation (“Eaton”), alleging infringement of fourteen asserted patents.<sup>1</sup> COMPLAINT (Doc. No. 1) at 2–3. The asserted patents are generally directed toward methods of cold-forming valve lifter bodies.

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<sup>1</sup>Plaintiff originally asserted fourteen patents. COMPLAINT at 2–3. The Court dismissed Plaintiff’s claims as to nine of the originally asserted patents for lack of standing. (Doc. No. 114). Thus, five patents and forty-four claims remain at issue.

Claim 12 of the '025 patent is set forth below as a representative claim with disputed claim terms set forth in bold.

12. A method for manufacturing an assembly, comprising the steps of:

- a) providing a socket that includes an outer socket surface, a first socket surface, a second socket surface, and a socket passage, comprising the steps of:
  - i) cold forming, at least in part, the outer socket surface;
  - ii) cold forming, at least in part, the first socket surface to include a push rod cooperating surface defining a first socket hole linking the first socket surface with the socket passage;
  - iii) cold forming, at least in part, the second socket surface to include a **protruding surface**, a first flat surface, and a second flat surface; wherein the **protruding surface** is located between the first flat surface and the second flat surface;
  - iv) defining a second socket hole within the second socket surface so that the second socket surface is linked with the socket passage;
- b) providing a leakdown plunger that includes a first plunger opening, a second plunger opening that cooperates with the socket, and an outer plunger surface, comprising the steps of:
  - i) cold forming, at least in part, the first plunger opening to provide a first annular plunger surface defining a plunger hole shaped to accommodate an insert;
  - ii) cold forming, at least in part, the second plunger opening to provide a second annular plunger surface;
  - iii) cold forming, at least in part, the outer plunger surface;
- c) providing a body that includes an outer surface enclosing a first cavity and a second cavity, wherein the first cavity is provided with a first opening shaped to accept a roller, a first wall, a second wall, a third wall, a fourth wall, a **first angled wall**, a **second angled wall**, a **third angled wall**, a **fourth angled wall**,

a first curved surface, and a second curved surface, comprising the steps of:

- i) cold forming, at least in part, each wall and each **angled wall** of the first cavity to extend axially into the body from the first opening so that the first wall faces the second wall, the fourth wall terminates, at least in part, at the first curved surface, and the third wall terminates, at least in part, at the second curved surface;
  - ii) cold forming, at least in part, the second cavity;
  - iii) providing the second cavity with a second inner surface that extends axially into the body from a second opening;
  - iv) machining, at least in part, a cylindrical surface into the second inner surface of the second cavity; and
- d) assembling the leakdown plunger and the metering socket so that the second socket surface faces the second annular plunger surface.

‘025 patent at 32:9–61 (claim 12). Four disputed claim terms remain at issue, and each will be addressed herein.

### LEGAL STANDARD

The claims of a patent define the patented invention. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389-90 (1996). Under *Markman v. Westview Instruments, Inc.*, district courts construe the scope and meaning of disputed patent claims as a matter of law. 517 U.S. at 373. Claims are construed from the standpoint of a person having ordinary skill in the art, *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003), and according to the Federal Circuit, the court must “indulge a heavy presumption that a claim term carries its ordinary and customary meaning.” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (internal quotations omitted); *see also Phillips v. AWH Corp.*, 415 F.3d 1303,

1313 (Fed. Cir. 2005) (“the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention”).

The first step of the claim construction analysis requires the court to look to the intrinsic evidence, beginning with the words of the claims themselves, followed by the specification and—if in evidence—the prosecution history. *Teleflex, Inc. v. Ficosa N. Am.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582-84 (Fed. Cir. 1996); *see also Phillips*, 415 F.3d at 1315 (“the claims themselves provide substantial guidance as to the meaning of particular claim terms”). A term’s context in the asserted claim can be very instructive, and other claims may aid in determining the term’s meaning because claim terms are typically used consistently throughout the patent. *Phillips*, 415 F.3d at 1314.

The claims of a patent “must [also] be read in view of the specification, of which they are a part” because the specification may help resolve ambiguity where the words in the claims lack clarity. *Id.* at 1315; *see also Teleflex*, 299 F.3d at 1325. Yet, the written description should not trump the clear meaning of the claim terms. *Tate Access Floors, Inc. v. Maxcess Techs., Inc.*, 222 F.3d 958, 966 (Fed. Cir. 2000) (“[a]lthough claims must be read in light of the specification of which they are part . . . it is improper to read limitations from the written description into a claim”); *Arbitron, Inc. v. Int’l Demographics Inc.*, No. 2:07-cv-434, 2009 WL 68875, \*3 (E.D. Tex. Jan. 8, 2009) (“although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments”).

Finally, an inventor may “choose [] to be his or her own lexicographer” by expressly defining terms in the specification. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 990

(Fed. Cir. 1999). A court may examine the prosecution history to determine whether the patentee intended to deviate from a term’s ordinary and customary meaning. *Teleflex*, 299 F.3d at 1326. The prosecution history may “limit [] the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.” *Id.* (quoting *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985)). If analysis of the intrinsic evidence resolves any ambiguity in disputed claim terms, then “it is improper to rely on extrinsic evidence.” *Vitronics*, 90 F.3d at 1583 (citations omitted). Extrinsic evidence—such as expert testimony, dictionaries, and treatises—may be used only if ambiguities remain after analyzing all the intrinsic evidence. *Id.* at 1584.

Where a claim limitation is expressed in means-plus-function language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. section 112, paragraph 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, section 112 mandates that “such a claim limitation be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.” *Id.* (internal quotations omitted). Accordingly, when faced with means-plus-function limitations, courts “must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations].” *Id.*

Construing a means-plus-function limitation involves two inquiries. The first step requires “a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Id.* A structure is corresponding “only if the specification

or prosecution history clearly links or associates that structure to the function recited in the claim.”

*Id.* Moreover, the focus of the corresponding structure inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.*

## **DISCUSSION**

The parties present the following four disputed claim terms for construction: 1) “abuts;” 2) “[first, second, . . . ] angled wall(s)”/[first, second, . . . ] angled roller wall(s); 3) “lead [lifter] surface;” and 4) “protruding surface.”<sup>2</sup>

### **I. “abuts”<sup>3</sup>**

<b>Plaintiff’s Proposed Construction</b>	<b>Defendant’s Proposed Construction</b>
to be adjacent to, or to touch or join one another	makes direct contact with

Plaintiff argues that the term “abuts” encompasses both objects in direct contact and objects adjacent to one another. OPENING at 3–4. Defendant argues that this term requires direct contact. RESPONSE at 5–6.

The term “abuts” is used in claim 48 of the ‘329 patent. This claim discloses:

48. A method for manufacturing an assembly that includes a socket body, a leakdown plunger, and a roller follower body, comprising the steps of:
- a) providing the socket body that has, at least in part, been cold formed to include a first socket surface, an outer socket surface, and a second socket surface;

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<sup>2</sup>The parties have also agreed to a number of constructions. AMENDED JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT PURSUANT TO P.R. 4-3 (“Prehearing Statement”) (Doc. No. 82), EXH. A.

<sup>3</sup>The term “abuts” is contained in claims 48, 53, 54, and 59 of the ‘329 patent.

- b) providing the leakdown plunger that has, at least in part, been cold formed to include a first annular plunger surface located at a first end of the leakdown plunger, an inner plunger surface provided with a cylindrical plunger surface that **abuts** an inner conical plunger surface;
- c) providing the roller follower body that has, at least in part, been cold formed to include:
  - i) a plurality of roller walls that are configured to accommodate a roller;
  - ii) a second roller cavity that is provided with a second roller surface and a second roller opening wherein a second inner roller surface is provided with a plurality of cylindrical surfaces and configured to accommodate the socket body and the leakdown plunger; and
- d) assembling the socket body and the leakdown plunger within the roller follower body so that the socket body and the leakdown plunger are located at least in part within the second roller cavity and the second socket surface of the socket body faces the a second annular plunger surface.

‘329 patent at 44:11–38 (claim 48); *see also id.* at 45:31–67, 32:1–7 (claim 54). Claim 48 indicates that within the leakdown plunger, a cylindrical plunger surface abuts an inner conical plunger surface. Figure 25 depicts an embodiment of a leakdown plunger. Referring to this figure, the specification indicates:

The rounded plunger surface 251 is located adjacent to a first inner conical plunger surface 252, which is located adjacent to a second inner cylindrical plunger surface 253. *The second inner cylindrical surface 253 is located adjacent to a second inner conical plunger surface 254*, which is located adjacent to a third inner cylindrical plunger surface 255.

‘329 patent at 17:63–18:1–2 (emphasis added). Figure 25 depicts an embodiment of the leakdown plunger disclosed in claim 48, and these disclosures imply that the patentee intended no distinction between the terms “abuts” and “adjacent.”

Similarly, claim 53 discloses that a curved surface abuts a wall of the first inner roller surface. ‘329 patent at 44:65–67, 45:1–30 (claim 53). Figures 8, 9, and 10 depict a roller follower body. Referring to this figure, the specification indicates:

FIG. 10 depicts a first inner roller surface 50 depicted in FIGS. 8 and 9. . . . The second curved roller surface 55 is *adjacent to* a third angled roller surface 67 and a third roller wall 56.

‘329 patent at 7:60–8:11 (emphasis added). As with claim 48, Figures 8, 9, and 10 depict an embodiment of the invention disclosed in claim 53, and these disclosures also imply that the patentee intended no distinction between the two terms.

It is important to note that claim 53 also discloses that a first angled surface is located *adjacent to* a first wall, a fourth wall, a first angled wall, and a first curved surface. ‘329 patent at 44:65–67, 45:1–30 (claim 53); *see also id.* at 46:25–58 (claim 59). Because the patentee uses both of the terms “abuts” and “adjacent to” in each of claims 53 and 59, the Court presumes that the use of both of these different terms in each claim connotes different meanings. *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (citing *Tandon Corp. v. United States Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987)).

Yet, aside from this presumption based on the disclosure in only claims 53 and 59, the patentee uses these terms interchangeably throughout the ‘329 patent. The patentee makes no further disclosures that indicate an intention to distinguish the use of these two terms. As previously noted, the embodiments disclosed in Figures 8, 9, 10, and 25 correspond to portions of the inventions disclosed in claims 48 and 53, which imply that the patentee intended no difference in using these two terms. Moreover, the specification of the ‘329 patent uses the term “abuts” in a non-direct contact manner. *See* ‘329 patent at 17:35–37 (“the cylindrical plunger surface 281 may abut the



undercut plunger surface 282 so that the conical plunger surface 283 is an annular surface”). As a result, these claims and portions of the specification, in conjunction, indicate that the term “abuts” is used interchangeably with the term “adjacent to” in the ‘329 patent.

Defendant argues that the term “abuts” requires direct contact. RESPONSE at 5–6. Defendant asserts that the embodiments disclosed in the specification show abutting surfaces as surfaces that are in direct contact. *Id.* However, as previously discussed, the embodiments disclosed in the specification indicate that surfaces that “abut” one another are also “adjacent to” one another and vice versa. Furthermore, Defendant points to nothing in the intrinsic evidence that indicate that these terms are not used interchangeably, nor does Defendant point to other intrinsic evidence that supports its proposed construction requiring direct contact.

Defendant also argues that this construction is supported by a dictionary definition. *Id.* While dictionaries are “often useful to assist in understanding the commonly understood meaning of words . . . in claim interpretation,” *Phillips*, 415 F.3d at 1322, the “ordinary meaning” of a claim term “is its meaning to the ordinary artisan after reading the entire patent” *id.* at 1321. Thus, reliance placed on intrinsic evidence—the claims, specification, and prosecution history—should be greater than that placed on extrinsic sources—dictionaries, treatises, and encyclopedias, among other sources. *Id.* at 1320. Furthermore, extrinsic sources may be considered, but may not be “used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.” *Id.* at 1324. Thus, as set forth above, the term “abuts” is used interchangeably with the term “adjacent to,” and the intrinsic evidence fails to indicate that the term requires direct contact. Because there is no ambiguity in the intrinsic record, the Court need not consider the dictionary definition set forth by

Defendant in support of its argument.<sup>4</sup> Therefore, the Court rejects Defendant’s proposed construction and finds that the proper construction of the term “abuts” is “to be adjacent to, or to touch or join one another.”

## II. “[first, second, . . . ] angled wall(s)”<sup>5</sup>

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
the surfaces extending from a generally rectangular opening of a cavity configured to accommodate a roller in a body [e.g., valve lifter or roller follower] and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening	flat or planar wall that joins, and is oriented at an angle relative to adjacent lifter walls.

## “[first, second, . . . ] angled roller wall(s)”<sup>6</sup>

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
the surfaces extending from a generally rectangular opening of a cavity configured to accommodate a roller in a roller body and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening	flat or planar wall that joins, and is oriented at an angle relative to adjacent lifter walls

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<sup>4</sup>Moreover, in *Phillips*, the Federal Circuit noted three main problems with using dictionary definitions to establish the “ordinary” meaning of disputed claim terms. First, dictionaries focus on the abstract meaning of words rather than the meaning of claim terms within the context of the patent. *Phillips*, 415 F.3d at 1321. Second, dictionaries collect all uses of particular words, and the use of such dictionaries may extend patent protection beyond what should properly be afforded by the inventor’s patent. *Id.* at 1321–22. Finally, the scope of a claim term should not be determined based on “the preferences of a particular dictionary editor, or the court’s independent decision, uninformed by the specification to solely rely on one dictionary rather than another.” *Id.* at 1322.

<sup>5</sup>The term “[first, second, . . . ] angled wall(s)” is contained in claims 12, 17, and 21 of the ‘025 patent; claims 2, 3, 19, 21, and 27 of the ‘891 patent; claims 53 and 59 of the ‘329 patent; claims 12, 33, 34, 35, 37, 38, 39, 40, 41, 44, and 57 of the ‘520 patent; and claims 7, 11, and 13 of the ‘540 patent.

<sup>6</sup>The term “[first, second, . . . ] angled roller wall(s)” is contained in claim 9 of the ‘025 patent.

Plaintiff argues that the term “angled walls” as disclosed by the patentee encompasses walls having more than one shape, such as a curved shape. OPENING at 10. Defendant argues that the specification and the figures in the asserted patents indicate that the “angled walls” are flat or planar and cannot be curved. RESPONSE at 7–9.

The asserted claims disclose that the claimed inventions have “angled walls” and further disclose the relationship between the “angled walls” and other disclosures in the claim limitations. *See, e.g.*, ‘025 patent at 32:9–61 (claim 12); *id.* at 30:43–67, 31:1–59 (claim 9); ‘891 patent at 30:31–36 (claim 2); ‘329 patent at 44:65–67, 45:1–30 (claim 53). The specifications of the asserted patents make similar disclosures. *See* ‘025 patent at 19:64–67 (“[t]he first inner lifter surface 350 includes a plurality of curved surfaces, a plurality of angled surfaces, a plurality of walls, a plurality of angled walls, and a flat surface”); *id.* at 25:67, 26:1–3 (“the first angled roller surface 465 is configured to be at an angle 400 relative to the plane of a first angled roller wall 469-a”); ‘891 patent at 26:61–64 (“the third angled roller surface 467 is configured to be at an angle 400 relative to the plane of the second angled wall 469-b”). Thus, neither the claims, nor the specification indicate that the “angled walls” must be flat or planar.

Defendant argues that the figures in the patents show that the “angled walls” of the roller pocket are flat or planar. RESPONSE at 7–8. While Defendant is correct that figures depict the “angled walls” as straight lines, the remainder of the intrinsic evidence fails to limit the “angled walls” to being flat or planar. To read this limitation into the claims would be improper. *See Tate Access Floors*, 222 F.3d at 966 (“[a]lthough claims must be read in light of the specification of which they are part . . . it is improper to read limitations from the written description into a claim”); *Arbitron*, 2009 WL 68875 at \*3 (“although the specification may indicate that certain

embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments”).

Defendant also argues that the specifications of the asserted patents provide that an angled surface is configured to be at an angle relative to the plane of the first angled wall and that these statements indicate that the angled wall must be flat or planar. RESPONSE at 8–9. However, that a wall is angled relative to the plane of another wall does not mean that the second wall must be flat or planar. It merely means that regardless the shape or configuration of the second wall, the angle of the first wall is relative to the second wall’s plane.

Therefore, the Court finds that it would be improper to construe these terms to be limited to “flat or planar” walls. The Court finds that the proper construction of the term “[first, second, . . . ] angled wall(s)” is “[first, second, . . . ] surface extending from a generally rectangular opening of a cavity configured to accommodate a roller in a body [e.g., valve lifter or roller follower] and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening.” Similarly, the Court finds that the proper construction of the term “[first, second, . . . ] angled roller wall(s)” is “[first, second, . . . ] surface extending from a generally rectangular opening of a cavity configured to accommodate a roller in a roller body and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening.”

### III. “lead [lifter] surface”<sup>7</sup>

Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
a generally annular or frusto-conical surface [in a cavity of the valve lifter body] that, if followed, extends to a transition or a well	a surface in the shape of a truncated cone

Plaintiff argues that the claims and the specification of the asserted patents indicate that the lead surface may be either annular or frusto-conical in shape. OPENING at 15–16. Defendant argues that the lead surface must be frusto-conical because that is how the specifications consistently describe this surface. RESPONSE at 14–15. At the hearing, Defendant also argued that describing the lead lifter surface as “annular” would conflict with the parties’ agreed construction of the term “annular.”<sup>8</sup>

Claim 5 of the ‘025 patent discloses:

5. The method for manufacturing an assembly according to claim 1, further comprising the step of machining the second inner lifter surface to provide a **lead lifter surface** that is generally annular in shape.

‘025 patent at 30:4–7 (claim 5). Claim 6 of the ‘025 discloses:

6. The method for manufacturing an assembly according to claim 1, further comprising the step of providing the second inner lifter surface with a **lead lifter surface** that is generally frusto-conical in shape.

‘025 patent at 30:8–11 (claim 6); *see also* ‘520 patent at 23:29–33 (claim 11); ‘540 patent at 30:33–37 (claim 8). The specification of the ‘025 patent discloses an embodiment of the lead

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<sup>7</sup>The term “lead [lifter] surface” is contained in claims 5, 6, 8, and 9 of the ‘025 patent; claims 7, 10, and 11 of the ‘520 patent; and claims 8 and 9 of the ‘540 patent.

<sup>8</sup>The parties have agreed that the term “annular” means “in the shape of a substantially flat or planar ring perpendicular to the longitudinal axis of the body.” PREHEARING STATEMENT, EXH. A at 1.

lifter surface that is conically shaped. ‘025 patent at 21:29–34. The ‘540 patent discloses an embodiment of the lead lifter surface that is generally annular in shape and generally frusto-conical. ‘540 patent at 21:66–22:3. Because the specification explicitly notes that the lead lifter surface can be *generally* annular, Plaintiff’s proposed construction is not in conflict with the parties’ agreed construction of the term “annular.” These portions of the asserted patents make clear that the lead lifter surface is not limited to being frusto-conical or limited to the shape of a truncated cone. Defendant’s arguments otherwise rely on importing limitations from the preferred embodiments into the claims, as well as ignoring the explicit teachings of the specifications noted above. Therefore, the Court finds that the proper construction of the term “lead [lifter] surface” is “a surface that is generally annular or in the shape of a truncated cone [in a cavity of the valve lifter body] that, if followed, extends to a transition or a well.”

#### IV. “protruding surface”<sup>9</sup>

<b>Plaintiff’s Proposed Construction</b>	<b>Defendants’ Proposed Construction</b>
a surface projecting beyond another reference point or surface (e.g., between first and second flat socket surfaces)	a curved surface that extends outwardly (i.e. a convex surface)

Plaintiff argues that the “protruding surface” is not limited to any shape, so long as the second socket surface “cooperates” with the opening of an engine workpiece. OPENING at 17–18. Defendant argues that this term is used interchangeably with the term “curved socket surface,” and therefore, the “protruding surface” should be limited to being curved. RESPONSE at 10–11.

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<sup>9</sup>The term “protruding surface” is contained in claims 1, 9, and 12 of the ‘025 patent and claims 1, 17, and 27 of the ‘891 patent.

Claim 1 of the '891 patent discloses:

1. A process for manufacturing a valve operating assembly, comprising the steps of:
  - a) cold forming, at least in part, a socket comprising the steps of:
    - i) providing a first rod;
    - ii) cold forming, at least in part, a first socket surface into the first rod so that the first socket surface includes a push rod cooperating surface;
    - iii) cold forming, at least in part, a second socket surface into the first rod so that the second socket surface includes a **protruding surface**, a first flat surface, and a second flat surface, wherein the **protruding surface** is located between the first flat surface and the second flat surface;
  - b) cold forming, at least in part, a leakdown plunger, comprising the steps of:
    - i) providing a second rod;
    - ii) cold forming, at least in part, a first plunger opening into the second rod so that the first plunger opening is provided with an annular plunger surface that defines a plunger hole shaped to accommodate a generally spherical member;
    - iii) cold forming, at least in part, a second plunger opening into the second rod;
  - c) cold forming, at least in part, a valve lifter body that is provided with a valve lifter axis, comprising the steps of:
    - i) providing a third rod;
    - ii) cold forming a first lifter cavity into the third rod so that the third rod is provided with a first inner lifter surface that includes a first wall, a second wall, a third wall, and a fourth wall that extend axially into the third rod with the fourth wall being located adjacent to a first curved surface, the third wall being located adjacent to a second curved surface, and the first and second curved surfaces are located adjacent to a lifter surface that is oriented to

- be generally orthogonal to the valve lifter axis of the valve lifter body; and
- iii) cold forming, at least in part, a second lifter cavity into the third rod so that the second lifter cavity is provided with a second inner lifter surface that includes a generally cylindrical surface.

‘891 patent at 29:53–67, 30:1–30 (claim 1). This claim discloses that the protruding surface is a component of the second socket surface and is located between the first and second flat surfaces. *Id.*; *see also id.* at 31:63–67, 32:1–46 (claim 17); *id.* at 33:30–67, 31:1–21 (claim 27). The specification reiterates these points and adds that the protruding surface in the disclosed embodiment is generally curved, but may assume any shape. *Id.* at 15:14–17 (“the curved socket surface 233 of the preferred embodiment may assume any shape so long as the second socket surface 232 cooperates with the opening of an engine workpiece”); *see also* ‘025 patent at 4:47–62.

The ‘891 patent resulted from a series of continuation applications. The original application in the series resulted in U.S. Patent No. 6,871,622 (“the ‘622 patent”). The ‘622 patent discloses an embodiment of the socket surface that is virtually identical to that in the ‘891 patent, except the “protruding surface” is referred to as a “curved socket surface” in the ‘622 patent. ‘622 patent at 13:64–67, 14:1–20. During prosecution of this series of applications, the patentee changed the “curved socket surfaces” to “protruding surfaces,” and as a result, some of the patents—including the ‘891 patent—use both terms to refer to this component. *See* ‘891 patent at 15:3–17 (referring to the “protruding surface 233” of Figure 34 and later referring to the “curved socket surface 233” in the same figure).

Plaintiff argues that although the ‘891 patent resulted from a parent application that used the term “curved socket surface,” this relationship does not impose a common construction of the two



terms. REPLY at 6–7. While the relationship between a parent application and a continuation-in-part (“CIP”) application does not impose a common construction, as in the case cited by Plaintiff, common terms in continuation applications can require consistent constructions. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005). The ‘891 patent resulted from a series of continuation applications—not CIP applications. Claims in a continuation application must be supported by the disclosures in the original specification, *see* MPEP § 201.17, and therefore when the same term is used in a parent and continuation application common constructions will generally be appropriate. *NTP*, 418 F.3d at 1293.

Here, however, the term at issue is not a common term between the two patents. the patentee changed the term “curved socket surface” to “protruding surface” during the course of prosecution. *Compare* ‘891 patent at 15:1–17 *with* ‘622 patent at 13:64–67, 14:1–20. The specifications of both the ‘622 and ‘891 patents note that the “curved socket surface [or protruding surface] *may assume any shape.*” ‘622 patent at 14:17–20 (emphasis added); *see also* ‘891 patent at 15:14–17. Therefore, to limit the term “protruding surface” to a curved surface would be improper in light of the explicit disclosure in the specification of the patents. Further, the specification of the ‘891 patent characterizes the “protruding surface 233” as “raised with respect to the first and second flat surfaces 260, 261.” ‘891 patent at 15:26–27. Thus, the scope of the term “protruding surface” is broader than the construction Defendant proposes, and the scope of Plaintiff’s proposed construction is supported by the original specification. *See* ‘622 patent at 14:17–20. Therefore, the Court finds that the proper construction of the term “protruding surface” is “a surface projecting beyond another reference point or surface (e.g. between first and second flat socket surfaces).”

## CONCLUSION

For all the foregoing reasons, the Court construes the disputed claim language in this case in the manner set forth above. For the ease of reference, the Court's claim interpretations are set forth in a table attached to this opinion as Appendix A.

**So ORDERED and SIGNED this 14th day of August, 2009.**

  
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JOHN D. LOVE  
UNITED STATES MAGISTRATE JUDGE

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**MACLEAN-FOGG COMPANY,**

**Plaintiff,**

**v.**

**EATON CORPORATION,**

**Defendants.**

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**CIVIL ACTION No. 2:07cv472**

**APPENDIX A**

**U.S. PATENT Nos. 7,025,025; 7,069,891; 7,281,329; 7,284,520; and 7,293,540**

<b>Claim Language</b>	<b>Patent</b>	<b>Claims</b>	<b>Plaintiff's Proposed Construction</b>	<b>Defendant's Proposed Construction</b>	<b>Court's Construction</b>
accommodate(s)	'025 patent		AGREED	AGREED	receives in mating relationship
	'891 patent				
	'329 patent				
	'540 patent				
annular	'025 patent		AGREED	AGREED	in the shape of a substantially flat or planar ring perpendicular to the longitudinal axis of the body
	'891 patent				
	'329 patent				
	'540 patent				
chamfered	'520 patent		AGREED	AGREED	an edge that is rounded or angled
cold forming	'025 patent		AGREED	AGREED	shaping a solid metal slug by moving it through a sequence of tool and die cavities to form the metal without the application of heat
	'891 patent				
	'329 patent				
	'520 patent				
	'540 patent				

<b>Claim Language</b>	<b>Patent</b>	<b>Claims</b>	<b>Plaintiff's Proposed Construction</b>	<b>Defendant's Proposed Construction</b>	<b>Court's Construction</b>
cold formed	'025 patent		AGREED	AGREED	shaping a solid metal slug by moving it through a sequence of tool and die cavities to form the metal without the application of heat
	'891 patent				
	'329 patent				
	'540 patent				
concentric	'540 patent		AGREED	AGREED	a relationship between two objects wherein each shares the same central axis
configured to accommodate	'025 patent		AGREED	AGREED	shaped to receive in a mating relationship
	'329 patent				
configured to cooperate	'025 patent		AGREED	AGREED	shaped to provide a mating relationship
dimensioning	'329 patent		AGREED	AGREED	to shape or form to a desired size
enclosing	'025 patent		AGREED	AGREED	manufacturing so as to surround or partly surround
	'329 patent				
extruding	'025 patent		AGREED	AGREED	to form with a desired cross section by forcing a metal slug through, around or over a die, extruding die pin, extruding die, extruding punch pin, or extruding punch and forming pin

Claim Language	Patent	Claims	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
forgeable material	'329 patent		AGREED	AGREED	a metal material that plastically deforms in a manner suitable for forging in a cold forming machine
	'540 patent				
forging	'329 patent		AGREED	AGREED	shaping a solid metal slug by moving it through a sequence of tool and die cavities to form the metal
frusto-conical(ly)	'025 patent		AGREED	AGREED	having a substantially conical shape truncated before the pointed end
	'891 patent				
	'329 patent				
	'520 patent				
locating	'025 patent		AGREED	AGREED	positioning or establishing during manufacturing at a particular place with respect to other components, surfaces, walls, or features
	'520 patent				
oriented	'891 patent		AGREED	AGREED	positioned or aligned with respect to a particular object, plane or point of reference
	'520 patent				
	'540 patent				
orthogonal	'891 patent		AGREED	AGREED	perpendicular
	'520 patent				
	'540 patent				
placing	'025 patent		AGREED	AGREED	to put or position

Claim Language	Patent	Claims	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
positioning	'025 patent		AGREED	AGREED	arranging with respect to another component (e.g., part, surface, wall)
profiling	'891 patent		AGREED	AGREED	mechanically shaping a surface (e.g., of a transition) by means of a cutting tool
undercut lifter surface	'520 patent		AGREED	AGREED	outer lifter surface having a diameter less than the diameter of an adjacent outer surface
undercut surface	'025 patent		AGREED	AGREED	outer surface of a valve lifter or roller follower body having a diameter less than the diameter of an adjacent outer surface
	'329 patent				
abuts	'329 patent	48, 53, 54, 59	to be adjacent to, or to touch or join one another	makes direct contact with	to be adjacent to, or to touch or join one another
[first, second, . . . ] angled wall(s)	'025 patent	12, 17, 21	the surfaces extending from a generally rectangular opening of a cavity configured to accommodate a roller in a body [e.g., valve lifter or roller follower] and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening	flat or planar wall that joins, and is oriented at an angle relative to adjacent lifter walls.	[first, second, . . . ] surface extending from a generally rectangular opening of a cavity configured to accommodate a roller in a body [e.g., valve lifter or roller follower] and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening
	'891 patent	2, 3, 19, 21, 27			
	'329 patent	53, 59			
	'520 patent	12, 33, 34, 35, 37, 38, 39, 40, 41, 44, 57			
	'540 patent	7, 11, 13			

Claim Language	Patent	Claims	Plaintiff's Proposed Construction	Defendant's Proposed Construction	Court's Construction
[first, second, . . . ] angled roller wall(s)	'025 patent	9	the surfaces extending from a generally rectangular opening of a cavity configured to accommodate a roller in a roller body and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening	flat or planar wall that joins, and is oriented at an angle relative to adjacent lifter walls	[first, second, . . . ] surface extending from a generally rectangular opening of a cavity configured to accommodate a roller in a roller body and oriented at an angle to the surfaces that define the four orthogonal main sides, to form corners between the sides, of the generally rectangular opening
lead [lifter] surface	'025 patent	5, 6, 8, 9	a generally annular or frusto-conical surface [in a cavity of the valve lifter body] that, if followed, extends to a transition or a well	a surface in the shape of a truncated cone	a surface that is generally annular or in the shape of a truncated cone [in a cavity of the valve lifter body] that, if followed, extends to a transition or a well
	'520 patent	7, 10, 11			
	'540 patent	8, 9			
protruding surface	'025 patent	1, 9, 12	a surface projecting beyond another reference point or surface (e.g., between first and second flat socket surfaces)	a curved surface that extends outwardly (i.e. a convex surface)	a surface projecting beyond another reference point or surface (e.g. between first and second flat socket surfaces)
	'891 patent	1, 17, 27			